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ABSTRACT

Before presenting an analysis of vocational research and development during the last decade, an overview is given of educational research and development in general and its relationship to society and societal changes. The author's ideas are offered from different perspectives: As an educational administrator, a federal program administrator, a consultant to local school districts, and professor. Legislative and administrative policies are reviewed and objectives of the Office of Education for Vocational Education Research and Development are discussed. An analysis is made of vocational education research and development program goals addressing the questions of priorities, priority establishment, problems, voids, and sustained inquiry. Also discussed is the impact of federal policy and funding for vocational education research and development on state organization, state administration, state policy, state priorities, and state program and project funding. Several specific conclusions are offered to support the position that vocational education research and development has not caused major changes in education to any great degree. Recommendations include specific procedures and processes for application of research and development, dissemination of results to policy makers and administrators, and greater expenditure for dissemination of evaluated results. (NJ)

AN ANALYSIS OF VOCATIONAL EDUCATION R AND D POLICIES FROM THREE PERSPECTIVES

MISSION

(a) What legislative and administrative policies were established during the last decade?

(b) What O.E. objectives for vocational education R & D have been established?

(c) What general education R & D purposes were formulated during the past decade?

PROGRAM GOALS

(a) What were the vocational education R & D priorities 1963-1974 (questions or problems addressed, voids, context of priority establishment)?

(b) Did the priorities established reflect persistant, continuous, sustained inquiry?

(c) What was the relationship of vocational education R & D priorities to other educational and societal R & D priorities?

INFLUENCES AND INTERACTIONS

What impact has federal policy and funding for vocational education R & D had on:

(a) state organization

(b) state administration

(c) state policy

(d) state priorities

(e) state program/project funding?

AN ANALYSIS OF VOCATION EDUCATION RESEARCH AND DEVELOPMENT POLICIES FROM THREE PERSPECTIVES: MISSION PROGRAM AND INFLUENCE, 1963 to 1974

Grant Venn

INTRODUCTION

Vocational Education Research and Development has not and does not exist outside the overall educational Research and Development effort in the country. In nearly every case, including federal, state, and individual institution and school district, overall policy direction and mission has been and is today set by boards and administrators responsible for the total educational program and not just vocational education.

In order to put vocational R and D into perspective during this past decade it seemed to me to be necessary to present an overview of all of education R & D as a total package as it is related to society and its changes and then to proceed to the specific analysis of Vocational R and D during this same period.

It must be admitted at the beginning that much more time was spent then anticipated and much less analysis was possible than expected.

Therefore, I am basing a great deal of my analysis on 5 years of experience in the U.S. Office of Education during the major introductions of new legislation in the U.S. Congress as it related to Vocational Education; as a school administrator at the local level for three years; as a Director of the National Academy for School Executives helping chief school administrators prepare themselves to solve emerging issues and recently as a professor with greater time to read and attempt to see vocational education with less

involved perspective.

The procedure used was to:

(1) review the legislation Vocational R & D and the various Office of Education Guidelines and Regulations during this decade,

(2) review the U.S. House of Representatives Committee testimony before the Substantive and Appropriations Subcommittee by the Secretary of HEW, the Commissioner of Education, the Head of the Vocational Education Unit, and the Head of the Research Unit on OE and the National Institute of Education,

(3) review various articles and reports made by researchers, Office of Education, and other written evaluations, (most appear in the bibliography),

(4) interview several persons in local, state, and federal positions that have used educational and vocational education R & D monies and research, and

(5) visit U.S.O.E. for two days to talk with persons still in OE who had previous and present experinece in R & D in vocational and general education.

Certain basic overall conclusions seem to emerge from this complete review and analysis which will be given in this introduction as a basis for evaluating the specific conclusions drawn in answer to specific questions and the specific areas that follow in the next three sections.

1. Educational research of all kinds has been highly individualistic and concerned with small topics rather than broad missions.
2. The overall changes within the Office of Education which occurred frequently, impacted upon the vocational education R & D very significantly to prevent mission and priority setting over an extended time period.
3. Regardless of legislation vocational R & D tended to follow directions defined by chief adminstrators in USOE as they interpreted general education needs.

4. Educational R & D tended to be internally directed rather than responsive to societal issues, except in a broad way.
5. Certain individuals who were involved in original R & D efforts continued to show up as important leaders at the end of the decade as well as at the beginning.
6. There has been far too little evaluation and dissemination of vocational R & D. What dissemination that was done tended to be read by other researchers rather than policy makers or operational administrators.
7. There seemed to be an emerging direction from research with a job base to one of learner based, although this does not show itself in categories, but rather follows broad federal legislation.
8. There was an attempt to develop a system for vocational R & D which has now appeared to be waning.
9. Most program changes do not seem to come from specific research results.
10. There seems to be little organized political support for funding educational or vocational R & D at a level which would indicate a continuing inquiry pattern.
11. Most importantly there was no effort to look at the question of what should education be doing and nearly all effort was focused on how to do better what was already being done.

AN OVERVIEW OF EDUCATIONAL RESEARCH IN THE PAST TWO DECADES 1954 - 1974

There was almost no specific federal effort prior to 1954. Most of what was done was small individual efforts by university professors on their own time concerned with their own interests--even though it was possible to use federal vocational money on research starting in 1917. Sputnik and national concerns which appeared in the early 60s did generate some effort in general education (Cooperative Research Act) prior to 1963 Vocational Education Act. It would appear that much came about as an extention of a belief that research was vastly successful in the military and the sciences and thus would bring good results as well as changes in education.

Trends of Effort

The Cooperative Research Act and the National Defense Education Act were aimed at specific goals and improvements in mathematics, science and technology; areas which were directly related to national needs of the time and most effort focused on specific program improvements rather than general educational R & D. It was not until 1963 that a broad area was singled out. Vocational education and later the EPDA legislation focused on training and research in the development of educational personnel.

In general there has been an increasing effort in educational R & D since the mid-fifties, which seemed to be a concept that R & D had worked well for the military, health and science and thus would be good for education.

Both USOE and other federal agencies, as well as private foundations, all appeared to increase efforts at educational research in staffing and in developing generating systems for more R & D in education.

Trends of Money

Nearly the same pattern prevails in regard to financing, a slowly gaining effort in OE from 1956 to a peak in 1970 and then an apparent start of a reappraisal pattern in funding.

Trends of Programs

First efforts were aimed at science and related areas, personnel development and teaching techniques and methodology. A shift occurred toward consideration of new roles in education near the end of the 60s much of it caused by the Vocational Education legislation which Marland turned into Career Education as a call for "education reform" in the early seventies.

Overall research during the fifties probably shifted from "thing" oriented (science, mathematics) to people oriented in terms of legislation, but money tended to follow the older content, method and organization.

Trends of Impact

Researcher Bloom says, educational research has had little impact a recent study of Vocational Exemplary prospects, indicates a disappointing impact, yet in spite of it all, it would appear that impact comes more from broad trends and directions than from any specific piece of research, although Coleman's work seems to have had major impact because it looks at total systems rather than

individual pieces and parts which most educational research has done.

This analysis indicates that too often the results of research and information have not been seen by policy makers and administrators and thus the impact felt has been more on the research community than the educational system.

In general, it can be said that even if significant research results were achieved there was little evaluation of its worth, small efforts at application and little effort to disseminate the positive results to those who set policy and administer educational programs. It would appear that this is equally true in vocational education R & D.

This broad overview indicates that changes grew more from societal issues and observed problems than from research. Research seemed to follow the trends rather than discover evidence in advance.

It could be that monies for R & D in education must be used in this manner and that recent attacks on NIE show this.

AN OVERVIEW OF SOCIETAL CHANGES AND EDUCATIONAL ISSUES 1954-1974

During this decade many fundamental changes which were occurring over several years earlier came from scientific and technological research applied to production, distribution, communication and other facets of our economic system. These had major impact on our social institutions; and it would appear--formed the basis for much of the upsurge in educational research.

These changes are as follows:

1. A major change in the labor force make up in the nation;
2. a vast increase in the role of the school time for all youth and adults;

3. vast new sources of knowledge, information and their availability;
4. population mobility,
5. increased use of machines and technology, and
6. new wealth and opportunities for changing one's future.

Most of these changes were seen as the happy results of science, technology and research.

1954-63

During this decade came the first Educational R & D legislation and the 1963 Vocational Education Act was a model of hope since 10% was to be spent every year--yet was funded only two years at the start.

1964-1970

A system was started in Education R & D and also in Vocational Education R & D to train researchers and exchange information. At the end of the decade the results were challenged.

The net affect was a direct attempt to use methods and styles developed in the sciences and apply them in education. There were several basic premises assumed during this period--which must be challenged today.

(1) Education, per se, regardless of length and quality is what is needed by everyone; more is better.
(2) Can a changing society expect that a research result in the social science can "work" the same way as "Ohms Law"?
(3) Each individual is different--is there an answer in "edu - cational design", method or program that fits everyone?

1964-1974 - Educational Change

(1) Vocational Education Act--redirection of education role.
(2) Continued emphasis on more colleges until 1970.
(3) Student's raise questions of "relevance" and "value" of education.

(4) Increased funding in educational research which started to fade in later years.
(5) Criticism of education's failures.
(6) Open schools, CAI, Programed Learning, accountability, program objectives, etc.--all aimed at improving the input to students and student's output within the same purposes and broad goals.
(7) The beginning of "educational reform" career education.

Research Efforts in the Non-Social World

The success of research in the physical and biological world--industry and agriculture came to be recognized in full flower--research efforts in industry, military research expenditures and agriculture surpluses caused the society to feel that these methods and techniques could be applied not only by NSF and NIE, but by USOE and now NIE.

Societal Issues

1954-1963

1. Unemployment during economic growth.
2. National interest in education calling for federal funds.
3. Equal Educational opportunity.
4. Increasing youth unemployment.
5. Expansion of science, mathematics and research.

1964-1974

1. Remedial programs to reduce the disadvantaged pool; OEO, MDTA, etc.
2. Youth rebellion and isolation from society.
3. Reoccurrence of unemployment and recession.
4. Greater federal involvement in social problems.
5. Crime explosion.
6. Welfare growth issues.

Educational Issues

1954-1963

1. More to college--
2. Emphasis on science, mathematics, gifted and school as selection agent.
3. Increased effort to improve on present curriculum, methods, etc.
4. Since the home and society have changed so much; can education take the place of other fundamental social institutions?
5. Training teachers--to overcome shortage.
6. Expansion of facilities, etc.

The Writers Perspectives

As An Educational Administrator

Even if the research evidence indicates what needs to be done--how can I implement?

It seemed to me that one of the basic problems is the gap between research and application even though development and demonstration projects were carried on, they were often done in places so different that the application gap was still evident.

Most research reports seem to be written for the researcher or the technologist. For example vocational research is designed to be used by the vocaitonal specialist not the principal or superintendent and few if any research reports are designed or tested to instruct the administrator as to his role and the ways to install results into the system. Consequently most dissemination information is sent to the specialist from the administrator and policies and programs are not changed because the administrator does not know how to do it.

Few studies seem to continue long enough or are evaluated to the point that one can choose among the miriad of articles, reports, and general information coming from "research."

Most suggest add-on programs without funding plans or designs to replace or eleminate present activities.

In general the school administrator feels that educational research has not benefitted him and is a self-perpetuating effort.

As a Federal Program Administrator

I knew less about what the Research Unit in OE was doing when I was Associate Commissioner for Vocational and Technical Education than I do now since I have done this paper. I think most people found that the separation of research from the operational function was bad. With NIE completely separated, will the following be greater problems?

1. failure to get support for research from the total educational community and the policy makers;
2. differing signals to go to the field as to the purposes, goals, and priorities of the federal government.
3. conflicting testimony before Congress as to the value and impact of research efforts;
4. fail to cause a fusion of new programs into education, but will continue to cause the isolation of new project implementation from the policy, priority and program development by the "decision makers"
5. cause research to be "oversold" in an attempt to secure greater Congressional support and the resultant backlash will follow.

As a Consultant to Local School Districts and a Professor

It is amazing to find out the degree to which the local school administrator and teacher is unaware of any national effort in education in terms of research and the almost total unawareness of the general educator of any development in vocational education except programs and facility expansion.

This indicates that dissemination is almost ineffective.

It would seem to me in the last 5 years working, with the AASA and now out in local schools that the only clear call that came was Sid Marland and Career Education--which was dissemination by a lot of people, organizations, and non-educational persons.

Each educational level seems to have its own turf and English language. Each discipline has its own professional advancement policies. Each political level has its own protectionist policy.

The net effect seems to mandate a new approach by research in education as well as the development of a well known priority from which results can be evaluated and installation methods developed and disseminated by many organizations.

It leads me to the following conclusions:

1. Research results must be fused or integrated into the total program and known by all educators in the system before results will occur in student output.
2. The policy maker and administrator must be involved in setting the priorities to be researched and the plan of testing and installation. (Research can't be left to researchers.)
3. There must be a long range plan developed in the school when change is to occur.
4. Research evidence, and its development must be disseminated much more widely to the non-research community in a new language that speaks of payoffs, implementation and practical politics.

BODY OF THE PAPER

MISSION

A general statement needs to be made growing out of an analysis of all the legislation and regulations based on these policies.

First, There were hardly any vocational R & D personnel in the nation, thus when R & D funds were available the work was headed by general education and psychology researchers.
Second, The general mission in nearly all federal legislation in education was to improve what already was being done.
Third, Research methods developed in the sciences and in industry were the main ones available.
Fourth, The legislation was very broad and allowed any direction to be taken by the administrator of the total Office of Education and the Director of R & D in OE.

Legislative and Administrative Policies

During the last decade the first legislation was created to establish Vocational R & D in the 1963 Act which said 10 percent of the funds allocated to the states' shall be used for research, training programs, and experimental, developmental, and pilot programs. Grants required cost sharing. It allowed the U.S. Commissioner of Education to make grants to higher education, state boards of vocational education, local education agencies and non-profit private agencies.

Funds were appropriated first in 1965 and the 10 percent was reached only in 1965 and 1966.

In 1968 the Vocational Act Amendments split Part C between the Commissioner and the fifty states, added Part D Exemplary Demonstration and Part I for Curriculum Development.

The 1963 Act developed a unique set of institutions not found in general R & D in Education; the state Research and Coordinating

Unit in each of the 56 states and territories.

In general these units were to function in accordance with the state plan to perform research, administer contracts, disseminate R & D information, set priorities for R & D, assist in developing state plans and provide coordination of Vocational education R & D with the states.

The 1968 Act mandated the support of the RCU's started in 1965; up to 75 percent of the cost of the State RCU's. They should also review projects to be funded in the states by the state Part C funds.

Fifty RCU's are located in State Departments of Education and 6 in Universities.

The policy that was finally set was to use the state agencies as a developer of R & D and this became legislation in 1968.

The 1968 Amendments added Part D whose emphasis was on transition from school to work and Part I, to develop new curriculums for emerging occupations, and to improve the quality of curriculum.

In essence the policies and legislation for Vocational R & D has evolved these missions.

1. The most specific mission was the establishment of the RCU units and the R & D Centers which were started early and became part of legislation. The establishment of a research system was thus a specific legislative and administrative policy.
2. Emphasis on the disadvantaged was legislated and never became administrative policy and in my judgement in vocational education R & D. Thus it can be fairly said that most states are trying to find ways to spend, effectively, the 15 percent set aside for disadvantaged. Vocational R & D has made little if any effort to provide research evidence as to how to do this. Because of the RCU units in the state

departments and the nature of education as a "selective" institution it may be that other priorities take precedence.

3. The legislation in Part D Exemplary did focus on the purpose of transition as defined and became a definite policy in the administration. It would appear to be the basis for the development of a Career Education priority in the USOE.
4. The 1963 Act was quite non-directed in its mission except for the first time an emphasis was placed on the needs of people vs. a manpower needs emphasis.
5. The 1968 Amendments forced a much more structured program in terms of specific legislative directives yet was still broad in terms of determining specific funding. One-half the Part C funds were to be expended at the "Commissioner's Direction."
6. Neither Commissioner Keppel, Howe or Allen had much real concern for Vocational R & D since, in my judgement, they still saw Vocational Education as an "unlikely child." However, Commissioner Marland who had specific local administrative experience felt the new emphasis on work and transition, in Part D, could become the reform agent for education to meet the needs of youth; so generally out of touch with the real world.

   Vocational R & D then set some new directions through the Commissioner's interest and funds were highly redirected to Career Education even though legislation had not changed.
7. Since NIE was established by legislation, a shift away from career education seems to be developing. Vocational R & D now located in the Bureau of Occupational Education seems to continue to shift toward the emphasis started in Part D.

Office of Education Objectives for Vocational R & D

Objectives seem to be fairly clear since the 1963 and 1968 Acts more than any other federal legislation called for a redirection of this educational effort. No other federal legislation was as clear

in redirection of purpose and role for education--in fact other Educational Support and R & D tended to say, do the same thing only do it better and for more young people.

During the decade the objectives appear to be as follows:

1. Vocational R & D, located in the Bureau of Research and of little interest to the USOE Commissioner in the early years, tended to be aimed mainly at establishing an R & D system through the RCU's and relied on unsolicited proposals and ideas developed within the R & D community.
2. Legislation (1968 Amendments) forced the development of new objectives, through Part D which were administratively lodged in the Bureau of Occupational education and became the tool for the objectives of Career Education serving all youth not just those enrolled in Vocational Education Programs. The objective was to provide an emphasis on work, attitudes, skills, and planning as an integral part of the educational system for all youth. In addition, the objective was to fuse the academic and vocational efforts and to add to them many new components; in effect it was an overall educational reform.
3. One year nearly all R & D funds free and available were used to develop models (and also some Cooperative Research money) for Vocational Education which were to become demonstrations which all education could copy.
4. An attempt was made to strengthen dissemination through the development of AIM and ARM under the ERIC System.

To sum up--from a major change in Vocational Education legislation which provided R & D emphasis categorically came a whole new objective or redirecting all of education in terms of purpose, role, and even organization, which had been looked at in bits and pieces through general education R & D and always rejected as a policy or objective for general Education R & D. The stepchild became the vehicle to give leadership to the whole family. This change did not occur

while Vocational R & D was under the OE research unit until a Commissioner who saw the possibilities came aboard.

General Education R & D Purposes Formulated

In my judgement and an analysis of materials indicates that no new purposes were defined or formulated other than to establish a R & D system, the ERIC Centers, the emphasis on training researchers, the development of Regional Laboratories and Research Units.

When on tries to find any specific direction it is difficult.

The organization and structure of the federal educational R & D changed so often under the various adminstrative changes in OE and now is lodged as an independent agency with a separate Presidentially appointed Board. It is in the throes of a birth and now a life and death struggle already.

In essense the failure to look at questions such as:

1. can education do what it must do under present organization, structures and control,
2. what should be the role of education,
3. what societal change dictate changes in educational goals and purpose, and
4. are there better ways to prepare our youth for life and adulthood, which has caused a real critical challenge.

Education has been bound to present methods and techniques because it has been too successful and the educational fraternity that develops policy, keeps asking R & D to improve what already is. This syndrome is most evident in higher education and this is where most R & D is done.

The ultimate dissatisfaction came with lack of purpose or direction in OE and resulted in NIE. Reading the testimony before the Congress regarding the forming of NIE and then its battle for funds

makes one feel a definite lack of purpose which can be understood by Congress.

General R & D in OE did put more emphasis on disadvantaged and some studies, (Coleman), maybe have impact; yet the whole ESEA act was designed to be sure that all disadvantaged got what other kids were already getting.

I must reluctantly conclude the purposes of Education R & D in OE followed the pattern of all R & D; bit and pieces done by those already doing the bits and pieces earlier. The purpose of education was already set and R & D was to refine, expand, and improve the product but not to look for new products or new buyers.

Program Goals

Program goals in Vocational R & D came explicitly from legislation since the OE interest in Vocational Education was often questioned by Congress, those interested in Vocational Education, and the public.

One specific program which was not met, and in my judgement is still not, is the area of the disadvantaged and those with special needs.

Very often it appeared that the power structure in Education and also in OE were little concerned with vocational education and the vocational educator felt that his support and thus his program should be aimed at meeting needs of the user of his product, the employer. Little obvious interest was indicated in employing the most poorly qualified young. Thus the lack of support in OE at the top (until Marland) and the concerns of business and industry tended to emphasize program R & D that was narrowly focused.

In effect program goals again came from within the fraternity and in this case it was the vocational education community not the total educational community.

Vocational Education R & D Priorities 1963-1974

Priorities

In the early years 1963 through 1969 the emphasis was in two broad areas:

1. Institutional support for the RCU's and research centers at Ohio and North Carolina.
2. Research questions of general concern to vocational education rather than focused on any particular area. If there was an emphasis it was on curriculum, that is, the development of new occupational training areas related to the changing work force structure.

It should be noted that Vocational R & D administration was very "hectic." A brief summary of location in OE is of interest:

1963- Located in the Division of Vocational and Technical Education under a new OE organization. The division was under the Bureau of Educational Assistance Programs headed by an Associate Commissioner.

1965 - A White House Task Force on Education put Vocational Education R & D in a new organized Bureau of Research in OE under a Division of Adult and Vocational Research with three branches, Employment Opportunities Branch, Human Resources Branch, and an Educational Resources and Development Branch.

1967 - A new Organization changed Vocational R & D into a Division of Comprehensive and Vocational Education Research with four branches; Basic Studies Branch, Instructional Materials and Practices Branch, Organization and Administrative Studies Branch and a Career Opportunities Branch.

1969 - A new OE organization was formed and Vocational Education R & D became part of the National Center for Educational

Research and Development and the Associate Commissioner for Research reported to the Deputy Commissioner for Planning, Research and Evaluation. Vocational Education R & D was a Division in the Bureau of Research a part of the Center.

The latest organizational forum took place when NIE was born and Vocational R & D returned to its original location in what is now called a Division of Vocational-Technical Education in the Bureau of Occupational Education.

During the later period of the 60s and showing clearly at the time of the development of a Career Opportunities Branch in 1969 came a priority shift to preparation for a career rather than just a job. The beginnings of a shift of priorities toward persons and their needs.

Marland in 1971 redirected the priorities drastically as he has said, based on reports he had received from responses to the field on Part D Exemplary programs. The stated priorities by the National Center for Educational Reserach and Development included career development, guidance, placement and followup, the new Commissioner put the bulk of the funds in the development of five models for Vocational Education. Nearly one third of the 1971 funds of Part C were used for continuation of previously funded projects in order that the models could be funded the next year. The models were to create a new role and a new way.

The priorities thus moved to reform of vocational education to be broader, for all students, and in the direction of career education.

The patterns of organizational changes, administrative lack of interest, and new legislation forming NIE made for the rapidly changing priorities--much more then in education in general.

Priorities moved from support for minor changes in Vocational

R & D and new programs of training to one of specific emphasis to people needs and the development of total new systems through the model building and eventually to a career education priority which led finally to specific legislation to establish support, status, and power for Career Education.

Voids

One would have to say again that the lack of concern for the disadvantaged was evident and though stated as a priority did not generate much effort or expenditures.

Dissemination was and is a problem and I would say again that little effort was specifically directed to it by R & D--yet it did take place through the efforts of the operational staff starting with the OE Commissioner. Vocational R & D is disseminated to RCU's and those doing research, thus there is a void in preparation and dissemination of Vocational R & D materials usable by the practitioners or even directed to them.

GAO recently criticized Vocational Education for a lack of planning and I would have to say that OE R & D has consistently avoided responding to the matter of getting R & D that will help make state and local planning better.

A major void also is the failure to direct any R & D efforts at reaching the rest of the educational community in terms of implications for change in educational process that could come through use of Vocational R & D efforts.

Rather than spend R & D funds or support projects that fundamentally change the organization and structure of state and local operations; R & D has focused on how to improve the quality of present organization rather then to change it.

Priority Establishment

Unfortunately one must again be critical and say that the researchers talk to each other or write to an educational R & D fraternity and not outside it to users, policy and power structure or those who pay the bills. Heavy reliance on RCU direction, educational researchers and power structures in Vocational Education tends to set priorities that are already on the books or in a set of "known truths."

However, the more direct response to national issues and societal change by vocational R & D have caused those outside of vocational R & D to have a major influence on setting priorities.

The Part D and I sections of the 1968 amendments grew out of persistant actions of vocational program responsiveness to youth unemployment, lack of direction, and out-dated program emphasis on fields using less manpower, such as agriculture.

The review panel system, the direction of R & D funds to those in R & D, and the national tendency described by John Gardner, "Every new idea starts as a dream and ends with a power structure," all tends to keep priorities long after they are valuable.

Again one must be aware that the Director of Vocational Education R & D is first a member of the Educational Community and his future is more dependent on his rapport with them than with his own institution or the public's interest. He generally reports to an educator who may not be concerned with Vocational education or its change and he has to fight the belief that vocational education does not have high respect generally.

In essence priority establishment in vocational R & D suffers from the same problem all of educational R & D does and thus has not significantly caused change in Vocational education--priority

setting has tended to come from outside--yet the tragedy is that most vocational practitioners are more prone to listen to federal priorities than other educators. Thus federal vocational R & D priorities need a big input from outside education.

Sustained Inquiry

There has been little specific sustained inquiry except in the traditional areas of curriculum and program improvement except for the continued suport of the RCU's and the Research and Development Centers.

The one thread that began to appear with the 63 Act, and the emphasis on people as the end not manpower needs, seemed to be a look at the problems of guidance, transition and career education. Part D grew out of this beginning, although I must say I cannot trace it directly to R & D grants.

Part D funds have consistently been aimed at this concept of student needs and relating them to societal needs for human resources.

Funding for placement and followup studies in terms of what happens with the investment in education seems to be sustained from the early Kauffman studies.

Finally one must say that the priorities as set by Marland did bring this to a continuing effort, although again the specific grants and contracts over the decade in R & D does not show this as clearly.

Relationship of Vocational Education Priorities to Educational and Societal R & D Policies

On balance one must say that the relationship was coincidental and not planned. Specifically I believe that Vocational R & D was not much different during the early decade than other educational R & D and neither were highly related to societal priorities. Yet,

the changing federal legislation in Vocational Education caused a late decade shift to very new directions with the funding of the models and the priorities of Part D and Part I which mandated new curriculums for new occupations.

One must recall that during the 1960s MDTA, OEO and many remedial programs were supposed to correct those that had fallen out of the educational system and thus allowed education and all education R & D to escape somewhat from the direct responsibility of being accountable for new programs which looked at people needs; in fact, it may be that this signal from the federal level was louder than the need for educational change said education should do what it has been doing and do it better rather than change roles.

Only when disenchantment, in the late 1960s, with OEO, MDTA and the other "corrective measures" became obvious did the effort to change begin to be seen as viable--from a pragmatic view.

I would agree that this was seen first in vocational education but vocational educational R & D was tied at OE to the General Education R & D thrust if not by law and direction, by organization and structure. Of course vocational education has its own fraternity and if Vocational R & D could have done better outside the structure it was part of is debatable.

Thus it seemed to me that Sid Marland saw this emerging demand not from R & D, but in the societal changes and issues, also directly from the White House and OMB and he saw the possibilities. It also coincided with his own experience and interest.

Thus a new set of priorities was to come to direct vocational R & D--yet it was not until the later part of the decade this showed up.

Vocational Education R & D had an impact because there was a readiness to listen to new approaches rather than just improve what was being done.

SUMMARY

My time spent on this analysis paper has not led me to believe that Vocational Education R & D has caused major changes in education to any great degree. This cause and effect relationship may be too much to expect regardless of the quality of R & D. I do come to certain conclusions that may be of interest to the committee and I can not tell you whether these come from my reading and study, experience, or personal prejudices.

1. Vocational education R & D, as well as all other R & D, must look at the problems of how to apply the R & D results and present specific process and procedures if its influence is to be greater.
2. R & D evidence must be presented in language that the general administrator policy maker and public can understand.
3. Dissemination of results must be aimed more at policy makers and administrators.
4. An expenditure for dissemination of "evaluated" R & D results must be as great or greater than the money spent on R & D.

INFLUENCES AND INTERACTIONS

The impact of vocational education R & D has been little because at the state and local levels the matters of administration, policy priorities and program funding are not set by the facts of research in one educational area such as vocational education but by the interaction of many facts and pressures, most of which are outside the education field.

The political organization and structure of education in the United States is such as to make it impossible to have 56 states and

roughly 17,000 school districts and over 3000 individual institutions of higher education act based on any vocational education research in any consistent and highly measureable way. It must be remembered that these units are theoretically concerned with all youth under their jurisdiction many of whom are not in vocational education; thus, to accomplish what is implied in the question of Influences and Interaction is to expect too much. It then is unlikely that these units will see Vocational R & D as prime mover when one considers the range of other pressures and influences on the policy makers and administrators that are not, in most cases, vocational educators.

Also the amount spent for Vocational R & D over the decade, even though greater than ever by many times, is an extremely small percentage of the total invested in vocational education and much less than the percentage invested in scientific and commercial endeavors.

However there has been some influence and in my judgement it has been greater than ever before.

State Organization

Nearly every state has an RCU unit in the State Department and this is a new factor although I cannot believe it came about from research. It was a judgement based on experience and grew directly from policy and funding patterns in USOE. Unfortunately it too often took the form of an add-on in terms of staff, program, and purpose and left the total state organization as it had been--each specialist selling his own program and ignoring and often rejecting the new unit or categorical funding. In some cases the new policy or funding tended to "organize the opposition" within the state rather than change the organization structure.

My discussions with various state people and with several Chief State School Officers leads me to believe that there is now some impact beginning to occur and a belief that vocational education may have something to offer to all youth. This has started not because of vocational R & D but rather from the impact of the concept of Career Education. It must be pointed out then that the first effort in this regard grew out of Part D research monies.

It seems also that Vocational Education has moved up in the state organization in terms of being closer and more involved with the policy makers, this followed the reassessment of vocatioanal education/career education changes in USOE mandated by law and espoused by Commissioner Marland. If Vocational Education can learn how to effectively communicate Vocational R & D evidence in terms the general administrator understands things may change more.

Lastly, the states pass-through feature of Vocational R & D funds in Part C-state share and Part D have had much more influence on state organization than other federal R & D money because the state has been more accountable for results through this process.

State Administration

In general state administration has tended to follow federal and in Vocational R & D. Yet I think the same thing is true at the state level as at the federal--the failure to basically re-organize the total administrative unit has caused Vocational R & D to not be seen as impacting on individual programs. The old line supervisor, for example, often sees R & D as a threat not a help. These people have not been involved enough in the planning for R & D. R & D has been a separate unit and the R & D results have not been disseminated to top administration.

State Policy

In this area I believe there has been an overall shift in policy of Vocational Education to newer fields, emphasis on people and on the concept of Career Education.

The single biggest impact has been to believe that vocational education and its methods of "learning by doing", work, experience, and career planning is good for all youth.

Where did this impact originate? I would believe from the general societal changes and from youths disenchantment with education per se. Yet if one has to find specifics I would say Part D which had an emphasis on work and transition. Perhaps more specific would be Marland's position on the ills of education and the values of vocational education and its methods for all students.

One other state policy is occurring but I am afraid not as much at the federal level, is the matter of trying to influence the Superintendent and Principals to understand vocational education. In the last few years most states have made an effort to impact on these persons. Perhaps Vocational R & D has provided some of the material to use in this new policy--which is essential.

State Priorities and Funding

There has been some shifts in state priorities primarily in the direction of guidance and involvement of youth at an earlier age. Programs aimed at helping youth begin career planning and occupational exploration.

A beginning of a truly strong priority for placement, followup, and evaluation and finally is a priority for dissemination to all elements of the educational community and the public.

Disadvantaged, planning, and changes within the high school and colleges still seem to be low on the priority levels.

In summary, there has been more impact and redirecting of vocational education than any other segment of the educational endeavor.

This has occurred because of legislation at the federal level which specifically redirected the use of funds and a major factor of unemployment and youth disenchantment with traditional education spent on the original research if impact is to be greater.

5. Policy making groups and priority setters in vocational R & D must get advice from people other than researchers and educational specialists in vocational education if their priorities are to be seen as important by the public.

6. A long range federal plan for Vocational R & D is necessary to include:

a. Research to be done,
b. Evaluation of results,
c. Selected dissemination to specific groups,
d. Periodic outside review.

7. Vocational education R & D must be tried in several different environments at the same time, since local educational units tend to see their use of R & D as more related to their situation than to the R & D evidence.

8. The experience of Career Education under Marland seems to indicate a pattern to be followed, if R & D priorities and results are to be successful. One must ask if a scattered approach can be effective.

In closing, one must raise the question if past and present approaches to educational R & D can be effective. There can be no doubt that education in a technological society is the bridge between

each individual and his future. There can be no doubt that education must change drastically and that this will be done by policy makers who are not interested in research for its own sake or by outside forces unaware of any R & D.

Vocational Education R & D then, along with all educational R & D, must look to the social issues which policy makers face each day and ask how this R & D will help them solve their problems; not if they change to think like a researcher but in terms of how they see the "elephant" from their point of view.

I am not at all sure that David Clarke's paper where he outlined the steps on page 6 of Federal Policy in Educational Research and Development will get the job done. It is sort of a chicken and egg argument and we may need more R & D and any R & D system, but these things will not come unless R & D can help the policy makers and administrators today--the funds and support will follow tomorrow.

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